

**REMARKS**

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-11 are currently active in this case. In the present amendment, Claims 12-17 are cancelled without prejudice or disclaimer, and Claims 1, 4-6 and 10 are amended without introducing any new matter.

In the August 22, 2007 Office Action, Claims 6-9 were rejected under 35 U.S.C. § 112, second paragraph, as being broader than the base claim. Claims 1-5 and 10-11 are indicated as allowed.

Applicants acknowledge with appreciation the indication of the allowable subject matter. Applicants also want to thank Examiner Maples for the telephone interview held on November 1, 2007 with Applicants' representative Nikolaus P. Schibli, at which time the outstanding rejection under 35 U.S.C. § 112, second paragraph, were discussed.

In response to the Restriction Requirement being made final, Claims 12-17, directed to non-elected invention, are canceled without prejudice or disclaimer. Applicants reserve the right to present claims directed to the non-elected invention in a divisional application, which shall be subject to the third sentence of 35 U.S.C. §121.<sup>1</sup>

Claims 1, 4-6 and 10 are amended to correct minor formalities and to better comply with U.S. claim drafting practice. Since these changes are merely formal in nature, they are not believed to raise any questions on new matter.

In response to the rejection of Claims 6-9 under 35 U.S.C. § 112, second paragraph, Applicants respectfully traverse the rejection, and request reconsideration thereof, as next discussed.

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<sup>1</sup> "A patent issuing on an application with respect to which a requirement for restriction under this section has been made ... shall not be used as a reference ... against a divisional application." See also MPEP 804.01.

Briefly summarizing, Applicants' independent Claim 1 is directed to a nonaqueous electrolyte secondary battery. The battery includes a positive electrode; a negative electrode including an alloy ***having a CeNiSi<sub>2</sub> type crystal structure***; and a nonaqueous electrolyte. However, dependent Claim 6 was rejected by the pending Office Action as having a formula that is broader than the alloy as claimed in Applicants' independent Claim 1. (Office Action, p.2, ll. 18-20.) Applicants' dependent Claim 6 recites that the alloy has a composition represented by a formula  $\text{LnM1}_x\text{M2}_y$ , wherein, *inter alia*, M1 is at least one element selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, and Nb, and M2 is at least one element selected from the group consisting of P, Si, Ge, Sn and Sb.

Applicants respectfully disagree with the pending Office Action's assertion that Claims 6-9 are not further limiting Applicants' independent base Claim 1, as next discussed.

Claim 1 clearly requires that the alloy has a CeNiSi<sub>2</sub> type crystal structure, and such crystal structure is not limited to the elements Ce, Ni and Si. The plain meaning of the word "type" in the claim expression "a CeNiSi<sub>2</sub> type crystal structure" makes this clear. With respect to the application of the word "type" to a chemical structure, the word has the meaning of "a genus or species that most nearly exemplifies the essential characteristics of a higher group."<sup>2</sup> In addition, this contention is supported by Applicants' specification as originally filed, for example at p. 30, starting at l. 21, that "the CeNiSi<sub>2</sub> type crystal structure covers not only the case where it is made basically of the three types of elements Ce, Ni and Si, but also the case where, as long as its crystal structure is maintained, the basic ***elements Ce, Ni and Si are substituted by different types of elements*** such as Ln, M1, and M2" (emphasis added).

In addition, Applicants' specification shows multiple examples of CeNiSi<sub>2</sub> type crystal structures in the Table 3 on p. 59 that do not have all the elements Ce, Ni and Si. For

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<sup>2</sup> type. (n.d.). *Dictionary.com Unabridged (v 1.1)*. Retrieved December 19, 2007, from Dictionary.com website: <http://dictionary.reference.com/browse/type>

example, Examples 18-22, 24, 26-27 and 29 do neither have Ce nor Si. Examples 25 and 31 do not have Si, and Example 28 does not have Ce. Nevertheless, all these examples represent a negative electrode including an alloy that is made of a CeNiSi<sub>2</sub> type crystal structure, as corroborated by Applicants' specification at p. 60, ll. 1-4. Accordingly, the alloy of Claim 1 is clearly not limited to the above three elements Ce, Ni and Si.

To further support that the CeNiSi<sub>2</sub> type crystal structure need not necessarily be composed of the elements Ce, Ni and Si, Applicants are herewith submitting a copy of some pages of the book "Crystal Structures" of Ralph W.G. Wyckoff, second edition, volume 1, published by John Wiley & Sons, New York, 1965, Vol. 1, pp. 85-95, hereinafter referenced as "Wyckoff." Table III of pages 86-91 of Wyckoff shows a compound having a NaCl type crystal structure, and Wyckoff references this type of crystal structure as "NaCl arrangement," "NaCl-type compounds," and "NaCl structure" (Wyckoff, p. 92), although it is apparent from Table III that the crystal structure may include many other elements other than Na and Cl, for example Ag and Br.

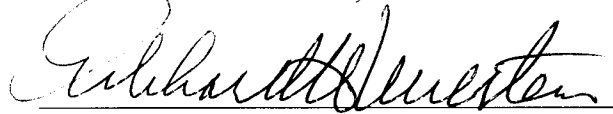
In light of the above discussion, the "CeNiSi<sub>2</sub> type crystal structure" of Claim 1 indicates a type of crystal structure, and is not limited to the elements that are specifically mentioned. Therefore, Applicants' dependent Claim 6 including the formula "LnM<sub>1x</sub>M<sub>2y</sub>" represents a narrower definition how the CeNiSi<sub>2</sub> type crystal structure of independent Claim 1 can be composed. (Specification, from p. 31, l. 21 to p. 32, l. 5.) The same rationale applies for the rejection of dependent Claims 7-9 under 35 U.S.C. § 112, second paragraph.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-12 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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